

Amendments to the Claims

Please cancel Claim 7. Please amend Claims 1-6 and 8-10. Please add new Claims 11-20. The Claim Listing below will replace all prior versions of the claims in the application:

Claim Listing

1. (Currently amended) An antitumor agent formulation, comprising an antitumor component agent and blended with hydroxyapatite particles having a maximum size of 5 µm, said antitumor formulation having reduced toxicity while maintaining the antitumor effects as compared to the toxicity of the antitumor agent administered without said hydroxyapatite particles, wherein said antitumor agent is blended with said hydroxyapatite particles and said hydroxyapatite particles are provided in an amount sufficient to reduce the toxicity and maintain the antitumor effects.
2. (Currently amended) The antitumor agent formulation of claim 1, wherein the hydroxyapatite blended said antitumor agent formulation is administered by one or more routes selected from the group consisting of injection, infusion, and an oral administration formulation.
3. (Currently amended) The antitumor agent formulation of claim 1, wherein the antitumor component said formulation is comprises one or more antitumor agents selected from the group of an alkylating agent, an antimetabolite, an antitumor antibiotic, a plant preparation, a hormone preparation, an immunotherapeutic agent, and a platinum preparation[[],] or an antitumor agent not classified as above.
4. (Currently amended) The antitumor agent formulation of claim [[3]] 1, wherein the antitumor component said formulation is comprises one or more antitumor agents selected from the group of cyclophosphamide, fluorouracil, bleomycin hydrochloride, bleomycin, bleomycin sulfate, etoposide, vincristine sulfate, interferon, cisplatin, carboplatin, nedaplatin, mitomycin C, doxorubicin,

nimustine hydrochloride, fluorouracil, carboquone, paclitaxel, melphalan, vinblastine sulfate, dacarbazine, ifosfamide, thiotapec, vinorelbine tartrate, vinorelbine, neocarzinostatin, tegafur, methotrexate, vindesine sulfate, goserelin acetate, sobuzoxane, tretinoin, estramustine sodium phosphate, toremifene citrate, flutamide, hydroxycarbamide, cytarabine ocfosfate, mercaptopurine, tamoxifen citrate, doxifluridine, busulphan, gefinitib, imatinib mesilate, oxaliplatin, uracil-tegafur (UFT), carmofur, aceglatone, anastrozole, ubenimex, fadrozole hydrochloride hydrate, procarbazine hydrochloride, or and bicalutamide.

5. (Currently amended) The antitumor agent formulation of claim 1, wherein comprising said hydroxyapatite particles with have a maximum particle size of 1 μm or less.
6. (Currently amended) The antitumor agent formulation of claim 1, wherein comprising said hydroxyapatite particles with have a maximum particle size of 0.1 μm or less.
7. (Canceled)
8. (Currently amended) The antitumor agent formulation of claim [[2]] 1, wherein comprising said hydroxyapatite particles with have a maximum particle size of 0.5 μm or less[[,]] wherein the antitumor agent is for oral administration.
9. (Currently amended) The antitumor agent formulation of claim 1, wherein the amount of hydroxyapatite blended is 0.1 to 1000% of the antitumor component.
10. (Currently amended) The antitumor agent formulation of claim 1, wherein comprising pulverizing the mixture of said antitumor component agent and blended with said hydroxyapatite particles is pulverized.
11. (New) A method of reducing toxicity of an antitumor agent without reducing the antitumor effects, comprising:

- a) providing an antitumor agent having toxicity when said antitumor agent is administered under a dosage regimen;
- b) providing porous hydroxyapatite particles whose maximum particle size is 5 μm , wherein said porous hydroxyapatite particles are provided in an amount sufficient to reduce said toxicity of said antitumor agent observed when said antitumor agent is administered without said hydroxyapatite particles under said dosage regimen;
- c) blending said antitumor agent with said hydroxyapatite particles in a liquid material;
- d) drying said antitumor agent blended with said hydroxyapatite particles; and
- e) preparing a formulation containing said antitumor agent blended with said hydroxyapatite particles for administration, wherein said formulation contains said antitumor agent in a concentration sufficient to elicit said toxicity observed when said antitumor agent is administered without said hydroxyapatite particles under said dosage regimen,
whereby reducing the toxicity of said antitumor agent without reducing the antitumor effects.

12. (New) The method of Claim 11, wherein said hydroxyapatite particles have a maximum particle size of 1 μm .

13. (New) The method of Claim 12, wherein said hydroxyapatite particles have a maximum particle size of 0.5 μm .

14. (New) The method of Claim 13, wherein said hydroxyapatite particles have a maximum particle size of 0.1 μm .

15. (New) The method of Claim 11, wherein said formulation is prepared for one or more routes selected from the group consisting of injection, infusion and oral administration.

16. (New) The method of Claim 15, wherein said formulation is prepared for oral administration.
17. (New) The method of Claim 11, wherein said formulation comprises one or more antitumor agents selected from the group of an alkylating agent, an antimetabolite, an antitumor antibiotic, a plant preparation, a hormone preparation, an immunotherapeutic agent, and a platinum preparation.
18. (New) The method of Claim 11, wherein said formulation comprises one or more antitumor agents selected from the group of cyclophosphamide, fluorouracil, bleomycin hydrochloride, bleomycin, bleomycin sulfate, etoposide, vincristine sulfate, interferon, cisplatin, carboplatin, nedaplatin, mitomycin C, doxorubicin, nimustine hydrochloride, fluorouracil, carboquone, paclitaxel, melphalan, vinblastine sulfate, dacarbazine, ifosfamide, thiotepa, vinorelbine tartrate, vinorelbine, neocarzinostatin, tegafur, methotrexate, vindesine sulfate, goserelin acetate, sobuzoxane, tretinoin, estramustine sodium phosphate, toremifene citrate, flutamide, hydroxycarbamide, cytarabine ocfosfate, mercaptopurine, tamoxifen citrate, doxifluridine, busulphan, gefinitib, imatinib mesilate, oxaliplatin, uracil-tegafur (UFT), carmofur, aceglatone, anastrozole, ubenimex, fadrozole hydrochloride hydrate, procarbazine hydrochloride, and bicalutamide.
19. (New) The method of Claim 11, further comprising pulverizing said antitumor agent blended with said hydroxyapatite particles.
20. (New) An orally administered antitumor formulation, comprising an antitumor agent and hydroxyapatite particles having a maximum size of 5 µm, said antitumor formulation having reduced toxicity while maintaining the antitumor effects when orally administered as compared to the toxicity of said antitumor agent administered orally without said hydroxyapatite particles, wherein said antitumor agent is blended and pulverized with said hydroxyapatite particles and said hydroxyapatite particles are provided in an amount sufficient to reduce the toxicity while maintaining the antitumor effects.